

Listing of Claims:

1. (Currently Amended) A microscopic image capture apparatus, comprising:

a low magnification optical system and a high magnification optical system;

5 a macro image capture unit which captures an image of wide-angle view of an entire observing slide by the low magnification optical system;

10 a sample image area extraction unit extracting which extracts a sample image an area including a sample image from the image of wide-angle view captured by the macro image capture unit from an image captured as an entire sample;

15 a height coordinate acquisition position setting unit which automatically sets setting a plurality of positions in an XY direction in which a height coordinate Z is acquired from a the sample image area extracted by said sample image area extraction unit;

20 a replacing unit which replaces the low magnification optical system with the high magnification optical system;

a coordinate read unit reading which reads a height coordinate of a focal point position of the high magnification optical system in each of the position positions in the

XY direction set by said height coordinate acquisition position setting unit;

25 a focal point adjusted position computation unit computing which computes an adjusted position of a focal point in an arbitrary position in ~~a~~ the sample image area using height coordinate data read by said coordinate read unit at the position positions set by said height coordinate acquisition position setting unit; and

30 a sample travel unit transferring which transfers a height of a sample to ~~an~~ the adjusted focal position computed by ~~a~~ the focal point adjusted position computation unit when the sample is horizontally traveled.

2. (Currently Amended) The apparatus according to claim 1, wherein said coordinate read unit performs autofocus processing with ~~a~~ the sample horizontally traveled to a set position, and reads a height position of said sample travel unit after

5 completion of the autofocus processing as ~~a~~ the height coordinate.

3. (Currently Amended) The apparatus according to claim 1, wherein said height coordinate acquisition position setting unit sets a position of a grid point including ~~a~~ the sample image in grid points of sections obtained by dividing ~~a~~ the sample image

5 area at predetermined intervals in grid form as ~~a position one of the positions~~ in which ~~a~~ the height coordinate is obtained.

Claims 4-8 (Canceled).

9. (Currently Amended) A microscopic image capturing method for use with a microscopic image capture apparatus, said method comprising:

extracting a sample image ~~an~~ area including a sample image from an image of wide-angle view of an observing slide captured by a low magnification optical system ~~an image captured as an entire sample;~~

setting a plurality of horizontal positions in which a height coordinate Z is acquired from ~~an~~ the extracted sample image area;

reading a height coordinate which is a focal point position ~~of a high magnification optical system~~ in each of the set horizontal position positions;

computing an adjusted position of a focal point in an arbitrary position in ~~a~~ the sample image area using the set horizontal position positions and height coordinate data read in the set horizontal position positions; and

transferring a height of a sample to the computed adjusted focal position when ~~a~~ the sample is horizontally traveled.

Claims 10 and 11 (Canceled).